EXHIBIT 95 REDACTED

From:			
To:			
Sent:	Wed, 10 Dec 2014 16:22:17 -0500		
Subject:	Re: Planning for 2sided rev-share launch		
Cc:	Nitish Korula		
	, Scott Spencer	,	
Aparna Pappu			

Let's also make sure we decouple any 2-sided DRS disagreements from the launch of naive DRS. That does not mean we don't minimize the time between naive and v2 launch though.

On 10 December 2014 at 16:11, wrote:

+1 on proposal on forming the group tasked by coming up with an agreed solution in a short amount of time, say by the end of January. I can imagine that getting a consensus decision is hard, so we need to settle with a solution that makes us moving to DRSv2 fast. We can do a combination of weighted voting, and leave to management to make a call & declare it to GDN (taking into account their requirements). One simple strategy is:

- 1) to perform simulations for most prominent proposals,
- 2) present each proposal with simulation numbers and listing pros/cons to Aparna/Scott et al, and
- 3) leave it to weighted majority/management to make the final call.

None of these solutions are going to be perfect. A good formal model for revenue sharing is reported in our WWW paper with the perfect solution is impractical, but that perfect solution is impractical since it needs to estimate the opportunity cost of publishers and its elasticity. I am all for trying to come up with a strategy to implement those ideas. This was our intention when we discussed all those and filed the patent...

Feedback on comments:

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- * As for being paradoxical, this is a somewhat subjective issue. This argument makes sense if bidders/buyers know their value for impressions, but they don't.
- * As for opportunity cost to publishers, I don't think it's a major concern for the first version (given the importance of dealing with, but we can take it into account for later versions. We have notes about this in the 2sided DRS document.

It would be great if we can all help to add other simulations for comparison. going back to my leave..

On Wed, Dec 10, 2014 at 3:37 PM, Nitish Korula wrote:

+1 to the idea of in-depth discussion in a small group, but it would be good if we can do this

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sooner rather than later, so we don't delay the launch. We should try to minimize the length of time between DRS launch and DRSv2 launch, whatever the definition of v2 is. Here's another concern (that at least I haven't seen addressed) with some of the DRS proposals where the **publisher** pays: This can result in *less* revenue for the publisher, because we don't take into account their opportunity cost from serving unfilled impressions elsewhere. (The WWW paper with talks about this a bit.) In particular, if the reserve price is coming from a remnant ad, then increasing fill rate by matching (some impressions) below their remnant CPM is a clear revenue loss for the publisher. Perhaps this is not significant, but it is important to note that *simulations that only use AdX logs can't validate this.* Therefore, one has to be careful about claiming debt back from the publisher.

Nitish

On Wed, Dec 10, 2014 at 2:24 PM, wrote:

One suggestion: Should we form a small team around dynamic-DRS? The goal would be to go over all the proposals in little more depth, and try to validate all the assumptions and claims. Some of the claims in design does are very hand-wavy, so forming a team consisting of different folks would bring transparency. Dynamic-DRS proposals are suggesting a huge deviation from our current auction, so a little caution and transparency would be very helpful for everyone.

Some people I have in mind are:

(one representative from GDN).

We can meet few times to come up with a document with all the pros and cons of different proposals, and then we can present to @Aparna and @Scott to take their blessing.

On a side note, some of my concerns regarding 2-sided DRS which haven't been addressed are:

1) Two sided DRS at bidder level can be **unethical**. If coke and pepsi are both bidding through the same bidder, it might happen that we give discounts to coke and make up for those discounts by charging pepsi more. I would think this is evil? I will advocate for trying two-sided DRS at advertiser level.

2) Two-sided DRS is **paradoxical**. Two-sided DRS is nothing but an accounting scheme. (Assuming we expect bidders to clear their credit account), an **equivalent strategy** is asking bidders to OPT-IN to the following "Hey AdX, If needed to clear the auction, you can charge me 20% more". But the point is, any bidder can already do that by bidding 20% higher! So when we have already given the control to the bidder to bid high if they want to, why would they want DRX to add 20% extra?

On Wed, Dec 10, 2014 at 7:11 AM, wrote:

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@Scott: we'll be using the opt-out process for dynamic RPO, will let you know who qualifies.

On Wed, Dec 10, 2014 at 9:50 AM, Scott Spencer < scottspencer@google.com > wrote:

This is a great discussion.

On Dec 10, 2014 2:28 AM,

One small note is that we should offer the "opt out" we are granting GDN to any other buyer that also provide a real second price (as defined by Google).

I bring this up as I believe there is at least one other buyer that would meet such criteria and, for completeness (not that I think it will actually affect the numbers), we should also model out such buyers.

-scott

Thanks for voicing your opinion clearly. Fortunately, we discuss all these proposals and their pros/cons in the document. I think we should think about 2sided revshare launch as an opportunity as opposed to a disruptive launch as we can incorporate those changes into the debt collected in 2sided DRS. Basically, it's an improvement over

wrote:

Naive DRS that opens further opportunities for us from sell-side (which is quite important for the whole market).

Let me first make one point clear before discussing things further: we should discuss sell-side auction changes among the sell-side, and discuss details of potential incentive issues mostly inside DRX, since otherwise, we reveal all possible gaming issues and open for subjective discussions for incentives etc. Also DRX's main/first goal is to increase the sell-side's revenue.

's proposal: as discussed earlier, the main advantage of sproposal is that it does not change the price in cases that we don't hit the dynamic region. The main cons compared to the 2sided rev-share is it does not take into account bidders' incentive and can result in drastic re-actions even in the near term. 2sided rev-share also have more short to midterm revenue potential and even under full re-action by bidders, recovers the same revenue. Saying this, we can/we should implement sproposal for GDN-type bidders for sure. Also, sproposal is going to add an implementation of sproposal to the simulations to compare near-term revenue lifts. Let me emphasize that from long-term revenue implications and the danger for creating incentives for bidders to lower their bid, Jim's proposal unfortunately has the same issues as the naive DRS. For example, if we keep charging bidders their bid in the dynamic region, they will start observing this & will start gaming the system. This issue is important even in the short term (as I learned in my dinner discussions with

As for incorporating the idea of debt discussed in 2sided DRS & extending it to apply for the

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